E-light Treatment System

User's Manual

Content

Chapter 1 System elucidation **2**

1.1 Specifications 2

1.2 Parts and control 3

1.2.1 Machine box 4

1.2.2 Control panel 4

1.2.3 The E-LIGHT treatment head 4

1.3 System program 5

1.4 The environment requirements 5

Chapter 2 Installation and Debugging 6

2.1 Detailed list of the equipments 6

2.2 Installation requirements 6

2.2.1 Space requirements 6

2.2.2 Electrical requirements 6

2.3 Installation 7

2.4 Replace the water 8

2.5 Installing the filter 10

Chapter 3 Operation 13

3.1 Software operation explanation 13

3.2 Treatment 19

Chapter 4 Application of the RF 21

4.1 Application 21

4.2 Taboos 21

4.3 The RF treatment head 21

4.4 Operation procedure 24

4.4.1 Preparation 24

4.4.2 Operation Examples 24

4.5 RF Parameters 26

Chapter 5 Accessory **30**

5.1 Protective glasses 30

5.2 The Gel 30

5.3 Order the accessory 30

Warning

Before operating and maintaining the E-LIGHT treatment instrument, please read user's

Chapter 1 System elucidation

This chapter introduces main parts of E- LIGHT: the control system and parameters.

1.1 Specifications

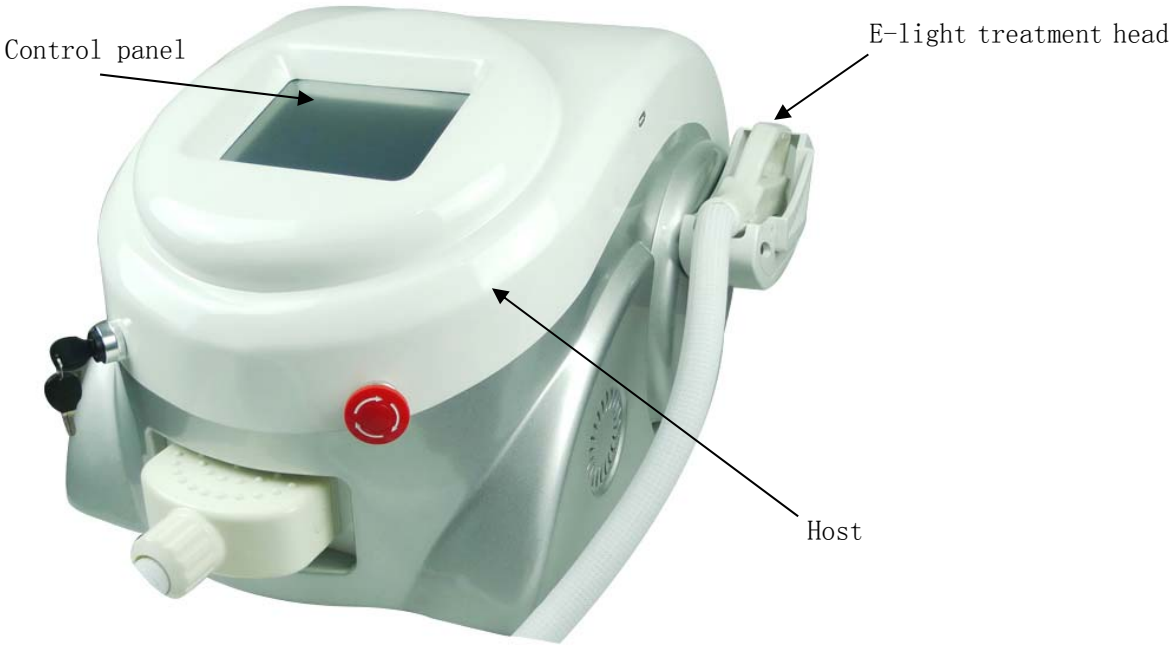
Light source: Intense pulsed light
Spectrum range:
420-1200nm, 510-1200nm, 560-1200nm, 585-1200nm, 610-1200nm, 640-1200nm, 690-1200nm
IPL energy density:10～50J/cm2

Pulse method: Intense pulsed technology (can adjust)
Pulse sequence: 1~5pulse
Pulse Intermission: 1~20ms
Pulse width: 1-20ms
Repeat frequency: 0.3-1Hz
E-light Spot size: 15×50mm2

Optional bi-polar treatment head: 20mm, 30mm, 35mm
RF energy level: 1-30J/cm2
Frequency: 5MHz
Cooling system: Water cooling, forced-air cooling and semiconductor cooling
Cooling temperature: -4~ 4 ℃
Operation interface: 8 inch touch screen
Power supply: 220V/ 50Hz / 110v/60Hz
Main machine size: 60*42*38cm3
Net weight: 21 KG 22kg with additional RF head
Gross weight: 35 kg 36 kg with additional RF head
Package size: 68*54*54

1.2 Parts and control

Machine box
Controling panel
The treatment head (E-light, Bi-polar)
The microprocessor inside inside the machine can keep on supervising and controling the working of the system.



There are two sockets on the back of the machine as follows:
A E-light 1M, ,Bi-polar RF

Caution

When you plug the wrong hand piece, the following hint will appear:

Installation Error

1.2.1 Machine box

Machine box is the heart of E-LIGHT system. It includes the following parts:
Power supply module: Supply power to other mo dule and cut off power when the system has malfunction;
The control module: Control and assort with the whole module of system ;
The display controller: Display various information of the system, and accept the instruction of
users;
High voltage power supply: Supply electricity to capacitor;
Capacitor: Store energy that intense pulse light needs ;
The Simmer power: light the lamp, and keep it in preignition state.
Cooling system: Cool the treatment head.

Caution

Please don't open the back cover board without the engineers guide, and maintain each internal module of this machine.

1.2.2 Control panel

The operator controls the system through the control panel which includes the following parts:
Key switch: To be used to turn on and off the power supply ;
Emergency Switch: pressing this switch will shut off the whole power supply of system immediately. It has priority over the system performance compared with the key switch. Follow the arrowhead direction, turn the emergency switch clockwise and loosen it at once, otherwise the machine will be kept off;
The LCD: The operator exchanges information by the LCD.
The system state, operation interface, hints and instructions are all on the LCD.

1.2.3 The E-LIGHT treatment head

The E-LIGHT treatment head contains electronics components emitting intense pulse. It connects the system through a set of cable; there is a filter with filmed at the end of treatment head. The E-LIGHT treatment head can emit intense light by pressing the red key on it, which is delivered to the area to be treated through the 8×40 mm² filter in the head. It is very important to keep the filter clean.
Inside the E-LIGHT treatment head, there is the thermoelectricity type semi-conductor refrigeration system used to cool down the filter. Then the temperature of the skin surface can be lowered down so as to reduce the patient’s discomfort.

1.3 System program

The program of the E-LIGHT mainly has four functions:
Allow the doctor to choose the best characteristic parameters for the patients according to the
concrete diagnosis.
Control the working process of the system, in order to prevent unexpected trouble ;
Examine the system energy;
Choose the treatment ranges ;

1.4 The environment requirements

Working temperature scope:10℃～30℃;
Relative humidity scope:≤80%
Atmospheric pressure barometric :86kpa ～106kpa;
The store environment temperature :0℃～55℃
Power supply:AC220V ±22V/AC110V ±11V, 50Hz/60Hz±1 Hz

Chapter 2 Installation and Debugging

The E-LIGHT treatment system can be used in the hospitals and the beauty salon. Before installation, the preparation is very simple.
The installation process includes:
Dismantle the packing and place the E-LIGHT system in the pre-chosen location.
Check the whole system and its parts.
Infuse distilled water into the water tank.

Connect the power supply.
Test all functions of the E-LIGHT.
Install and use

2.1 Detailed list of the equipments

The following is the detailed list of equipments of this machine:
Host
The hand pieces
Protective glasses
Gel
The plastics cover of filters
Funnel
Pipe
Power wire
Manual

2.2 Installation requirements

Before tearing down the packing of the E-LIGHT system, please check whether the position conform to the requirement of this chapter.

2.2.1 Space requirements

The E-LIGHT system should be kept away from the hot place with a draught, and should be kept a distance over 60 cm from other objects. It's good for avoiding radiation and collision.

2.2.2 Electrical requirements

Before the E-LIGHT leaves the factory, it has already been marked the local rated voltage according to the customers' request. It corres ponds to the electricity requirement as follows:
AC220V ±10%,16A ,50Hz. or AC110V ±10 %,20A , 60Hz
Input electric current can't have momentary change, electric voltage or electric current peak, and sinking.
We suggest that the E-LIGHT system use separate wire and air switches.

The main safety device in the machine is the 10 A chopper.

2.3 Installation

Take out the machine from the box and place it carefully in the appointed room, where the indoor temperature is at 10℃～28℃, and the humidity is not over 80%. Keep the operation room and treatment bed clean all the time.

Infuse distilled water from the water infusion hole until the water line reaches the 2/3 place of
the water level observation .

Install the treatment head. Requirement: keep the connection part dry and install it correctly.
Link the power supply .

Switch on: After completing the above installation, insert the key and turn it left, the machine is switched on at once, at this time, water begin to circulate, and the cooling system starts automatically.

Check: Observe instrument to make sure that no water leaks. If it is leaks, shut off the power supply, and contact the dealer.

Add water: When the water in the machine begins circulating, the water level inside will drop, so y ou should add some water to the 2/3 place of water level observation.

2.4 Replace the water

Replace the water inside every 2 to 3 weeks and please do it according to the following steps strictly:

Drain water in the machine: Screw off drain plug, lift up the front of the device to drain water completely.

Infuse water again following the above-mentioned steps.

Link the power supply according to the above mentioned steps.

Attention:

1 In order to guarantee the safety of operation, please increase the distilled water up to 2/3 place of the water level observation ;

2. Please use the distilled water (not pure waters) only.

3. if the machine has been in the room with its inside temperature below 0 ℃ for a long time, there may be frost inside the machine and t he machine may be damaged. Method: place the machine in a room with a temperature at 20℃ for 24 hours, then you can carry on operation.

Caution

1 In order to guarantee the machine operated safely, please increase the distilled water to the cooling system in time. It is not our responsibility if the treat ment head is damaged because of the shortage of cooling water.

2、While adding the distilled water for the first time, please carry on according to the above

steps, then start the system;

3、Use the distilled water or purified water only. The water temperature can not be lower than 5 degrees centigrade;

2.5 Installing the filter

Please install the filter as following pictures, pay attention to the direction of the filter, the direction of the arrow on the head should be in the direction of the arrow of the filter. The instructions for installing the big spot filters for the E-light treatment head are as follows:

Attain

Maybe it is caused by incomplete connection between the filter and the head, if the cooling

effect of the filter is not good。You can improve it as the instructions of the following pictures:

The big spot filters should be kept clean to avoid burn. You can do the cleaning with alcohol as

following instructions:

Chapter 3 Operation

This chapter describes the operation steps of the E-LIGHT system.

Warning

There is high voltage in the E-LIGHT, please make sure all front-panels are well covered"

When the E-LIGHT starts, please place the treatment head in its holder"

All personnel need to wear protection glasses or eye patch in the treatment room"

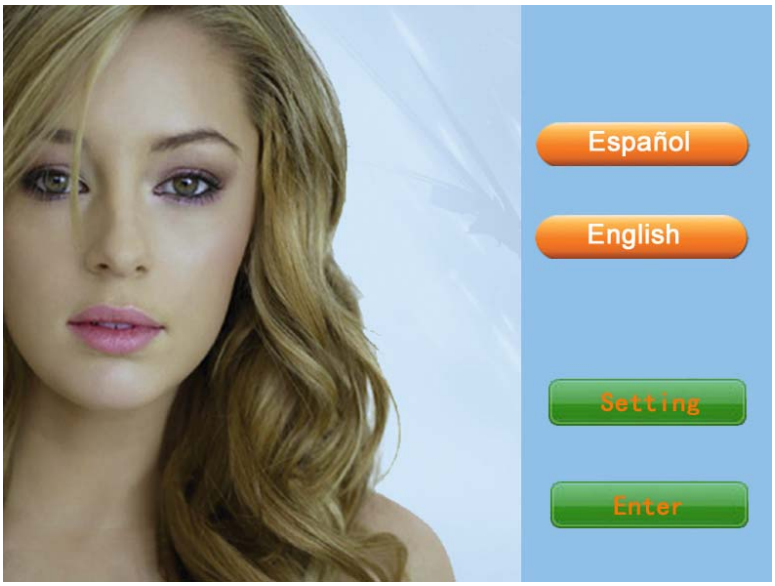
Even wearing the protective glasses do not look straight at the intense light emitted from the treatment head.

The treatment head shall not point to any other place besides the target"

Excessive energy toward the area to be treated may hurt skin

3.1 Software operation explanation

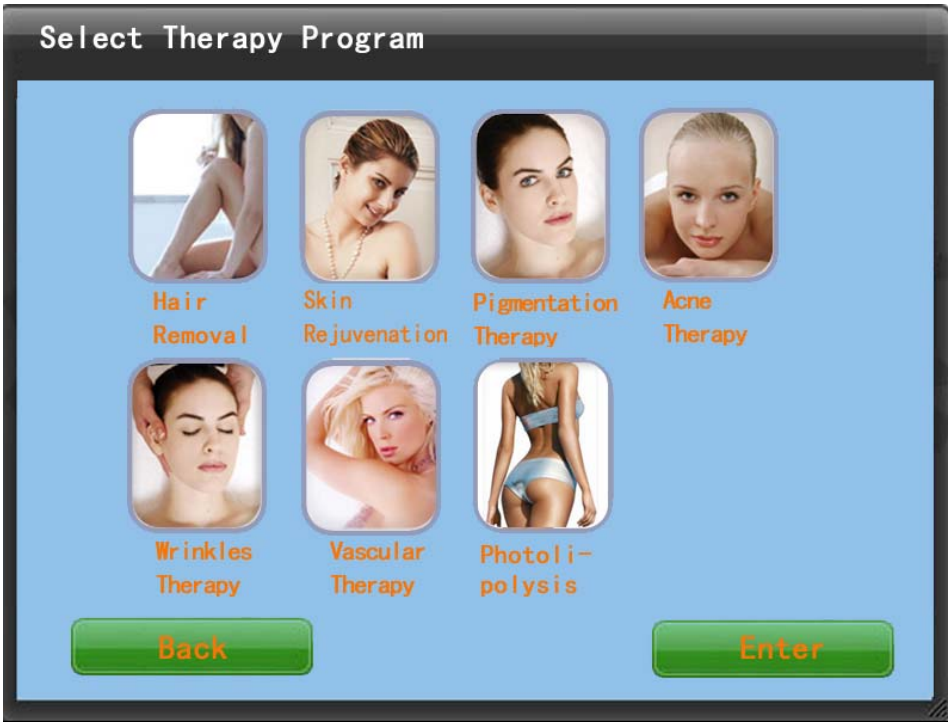
After Installing the(e-light or RF) hand piece, please switch on the machine, Choose the language



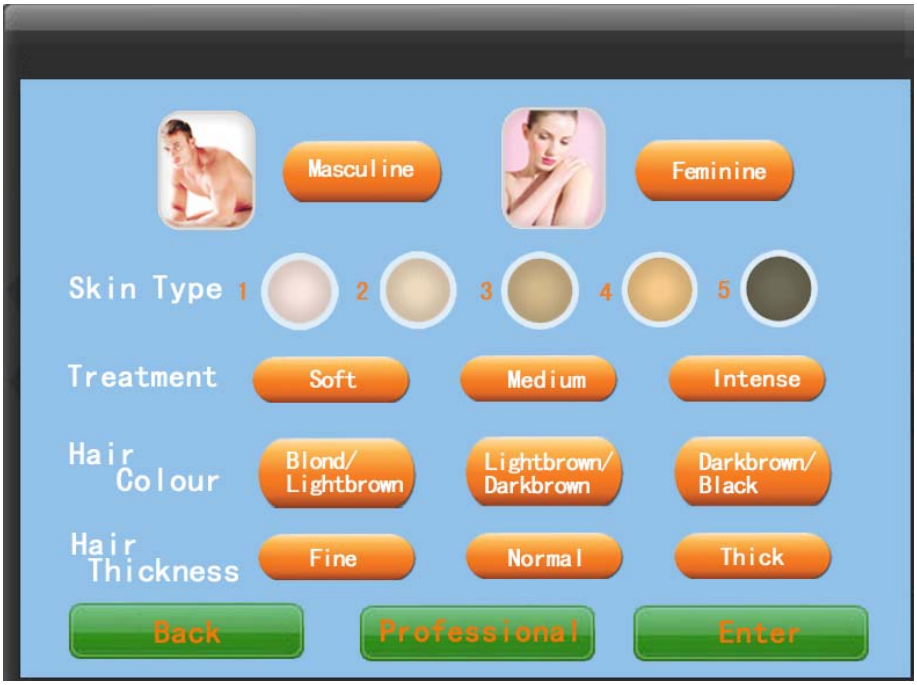
As shown in Picture , Into the interface , select the appropriate language:English, Spanish. Click the appropriate language , and Click ″Enter ″ The software system will identify the hand pieces (RF or E-light) automatically, and one of the following interfaces will appear:

When the system is equipped with Two socket,the two options: E-light and RF will appear on the main treatment interface;

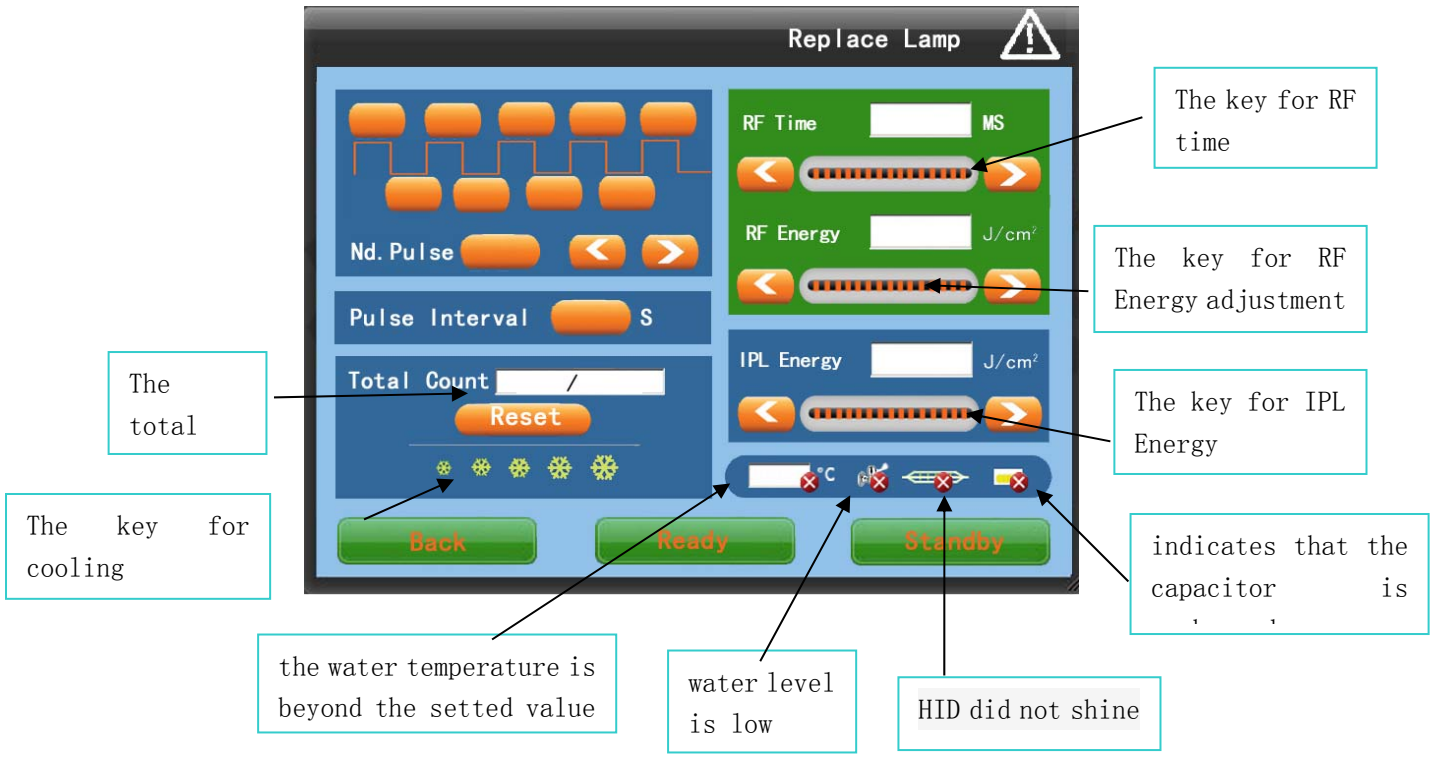
Choose “E-light” ,Click ″Enter ″into the treatment mode selection interface.



Choose the Function , Click "Enter" ,Click the appropriate treatment modalities (as shown in Picture), into the treatment of interface. setting the treatment according to customer's specific circumstances.



Click "Professional "enter the corresponding treatment operation interface.



Notice: When use the E-light function, please first adjust the IPL energy into 10 J/cm2. ,then adjust the RF energy to a proper energy level (When the patients feel the bearable hot feeling), then adjust the IPL energy to the proper energy level you need. For other adjustment, please reference the IPL parameters

3.2 Treatment

1、 We suggest starting the treatment by using the lower energy density, emitting a test light spot
to evaluate the patient｜s reaction.
2、After entering the working interface, the capacitance starts refresh. Press the button on the
head at this time, then can carry on the treatment. After a shot, the number of counter will add one;
the system starts recharged automatically, repeating the above-mentioned process.
3、To check the cleanness of the filter. If it looks unclear, please wipe with wet soft cloth.
4、Spread gel of 2 ～3mm on the treatment area. The intense pulse light will be conducted into the skin through gel which should be spread before treating.
5、Hold the treatment head vertically on the skin, press lightly, the treatment head should get
in touch with gel well.
6、Press the button to shoot an intense pulse light, the system will refresh again automatically, it takes about 2 seconds.
7、Wipe off the gel, check the treated skin to evaluate patient｜s instant reaction.
8 Treat the next skin area, and allow 1mm between the next area and the treated one.
9、Record the treatment parameters to provide information and reference for next treatment.

Caution

After the treatment, please put back head in the holder; let the system return the 『Menu

Chapter 4 Application of the RF

4.1 Application

1. Facial skin tightening
2. Fine wrinkle removal
3. The mandible and the neck skin tightening
4. Improve the conditions of sagging skin
5. Forehead wrinkle removal
6. Breast lifting
7. Renew back contours
8. Renew belly contours
9. Renew buttocks and legs contours
10. Hand care
11. Improving the channel between the lip and the nose
12. Weight losing of the arms and legs

4.2 Taboos

To avoid using the machine on the abdomen of the pregnant women or women in menses;
To avoid using the machine on the special parts, such as the ear, the nose, the eye ball and the larynx, etc.
To avoid using the machine on around the parts under which metal, plastic or silicon were buried.
To avoid using the machine on around the medical and electronic instrument, such as the hearing aid, heart starter, mechanical heart, etc.
To avoid using the machine on the children under the age of 12.
To avoid using the machine on the epileptic and those in bad health.
To avoid using the machine on the wound around the treatment area and the areas with metals inside of the body (for those with the loop-shaped metallic intrauterine device it is not allowed, either.)
To avoid using the machine on those with over expect on the result.
To avoid using the machine on people who has high blood pressure or diabetes or serious skin diseases or heart diseases, or who is sensitive to electric current, or who is receiving hormone treatment.

4.3 The RF treatment head

The RF treatment head contains electronic components emitting RF. It connects the system through a set of cable.

The instructions for installing the big spot filters for the RF treatment head are as follows:

Bipolar treatment heads in two sizes as following:

	Measurement	**Main parts to be use for**
1#	Φ20	Smaller part, such as the eye, the neck, etc.
2#	Φ30	The medium-sized parts, such as the face, upper arm
3#	Φ35	the abdomen, back, chest, waist , abdomen, buttocks , two thigh etc.

Pressing the key on the RF treatment head can emit RF, which is delivered to the area to be treated through the head.

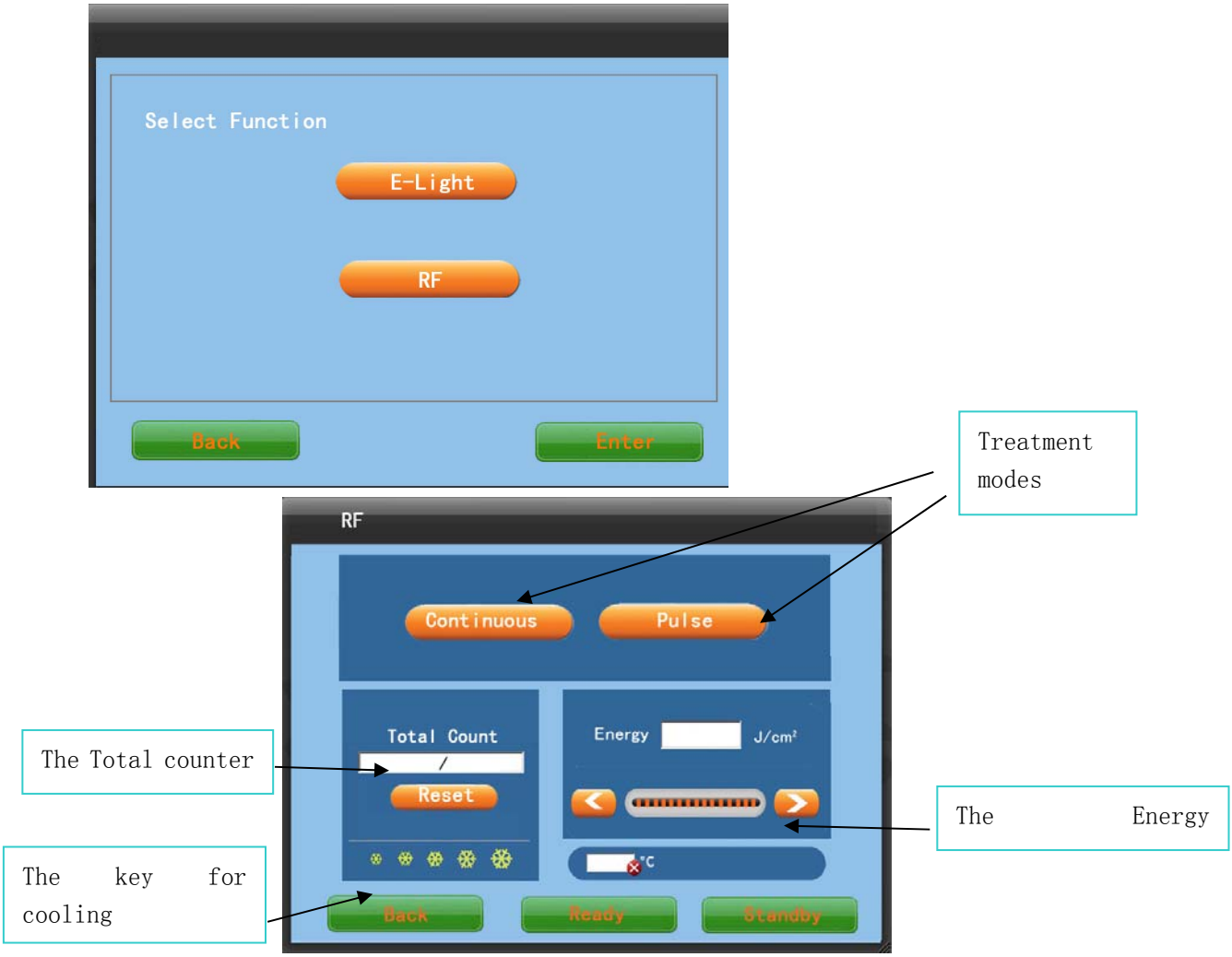
Inside the RF treatment head, there is the thermoelectricity type semi-conductor refrigeration system to be used to cool down the treatment head. So, the temperature of the skin surface can be lowered down so as to reduce the patient's discomfort.

4.4 Operation procedure

4.1 Preparation

1) Turn on the machine by the Key Switch

2) Press the “RF” and enter the interfaces(picture):



A. By adjusting the cooling system, you can make the treatment head to reach the right temperature.

B. Select the treatment modes (Continuous or Pulse):

C. Set the RF energy Level according to the parameters table.

Operation technique: Let the treatment head touch the target area and move (or slide) from the inner to the outer and round and round and from the lower place to the higher; do it in this way

again and again; when you do the treatment on the upper lid, please move a bit more quickly; when the gel on the face get drier, please add some water and go on with the treatment.

4.2.1 Face (Including cheek, eye, forehead, lip, neck and acne scars)

Operation procedure

(About 60 minutes for whole face, 30~45 minutes for neck)

a) Carry out a skin evaluation before treatment.

b) Clean skin.

c) Tone skin.

d) Massage with cosmetics.

e) Clean skin.

f) Smear gel on skin and apply treatment with hand piece.

g) Apply anti-aging distillate.

h) Wear face mask for 15-20minutes.

i) Clean skin.
k) Moisturize skin with cosmetics.
k) Carry out a skin evaluation after treatment.
Course of treatment: One course of treatments includes 5 treatments at an interval of every 10 days~15days.

Curative effect

After one treatment, the heated subcutaneous fiber shrinks instantly, therefore fine wrinkles are improved, and skin becomes tender, smooth and compact.
After one course of treatment: The collagen protein is regenerated for a long term, skin becomes tender and smooth, wrinkles are reduced, and skin is tightened and compact.
Note: Apply face mask twice a week at home.

4.2.1 Body (Including shoulder, back, waist, abdomen, leg, arm and buttocks)
Operation procedure
(About 60~90minutes for topical area)
a) Carry out a skin evaluation before treatment.
b) Clean skin.
c) Massage with body slimming distillate.
d) Smear body slimming distillate on ski n and apply treatment with hand piece.
e) Clean skin.
f) Moisturize skin with cosmetics.
g) Carry out a skin evaluation after treatment.
Course of treatment: One course of treatments includes 5 treatments at an interval of every 10 days~15days.

Curative effect

After one treatment, the heated subcutaneous fiber shrinks instantly; therefore skin becomes smooth, compact and elastic.
After one course of treatment: Skin be comes compact and flabby skin is improved.

4.2.3 Back of hand
Operation procedure :(About 60~90 minutes for topical area)
a) Carry out a skin evaluation before treatment.
b) Clean skin.
c) Smear gel on skin and apply treatment with hand piece.
d) Clean skin.
e) Moisturize skin with cosmetics.
f) Carry out a skin evaluation after treatment.
Course of treatment: One course of treatments includes 5 treatments at an interval of every 10 days~15days.

Curative effect

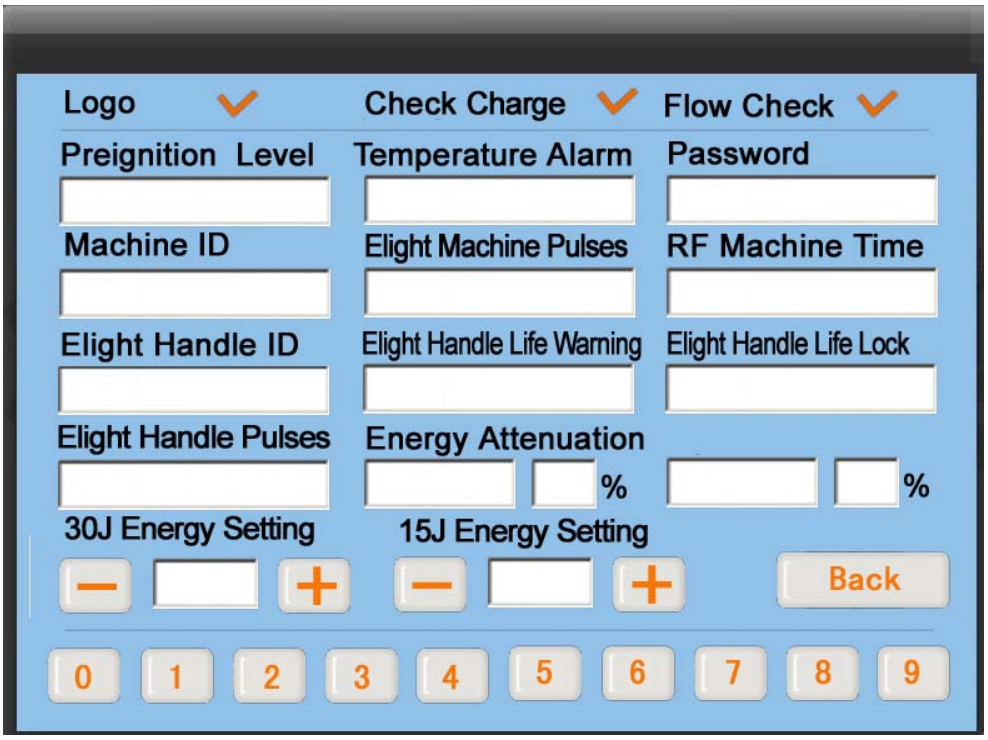
After one treatment, the wrinkles on the hand are improved, and skin becomes tender
After one course of treatment: Skin becomes tender and smooth, and the wrinkles on hand are improved.

Cautions

a) And the principle for treatment is that the patient should feel hot but not very or burned.
b) Replacing treatment head: When you want to replace the treatment head during treatment, you

5 Settings interface

Click the system settings enter the system settings interface (picture 8).



Chapter 5 Accessory

The accessories of this machine include:

- Protective glasses
- Eyepatch
- Power cable
- Funnel
- Pipe
- User’ s manual